

Title: Hwy 21:28 – CPR Overpass (BF 79441)

Memorandum (or Approval) Date: June 18, 2015

Design Exception Request Date: June 15, 2015

Region: North Central

Approval Status: Approved

Project Location					
Highway	Control Section	At km	From km	To km	Existing AADT
21	28		17.100	18.100	22100

Project Type (Mark all that apply with an X)			
Functional Planning:	New Construction:	Reconstruction:	Paving/Surfacing:
Bridge:	Operations:	Geotechnical:	Environmental:
Other:	<input checked="" type="checkbox"/>	<i>Guardrail installation</i>	

Summary
<p>Alberta Transportation has proposed to complete a trial of the Midwest Guardrail System which is a modification of the standard Strong Post W-Beam system. This modification includes the following variations:</p> <ul style="list-style-type: none"> - Higher top rail height (787 mm instead of 705 mm) - Larger spacer block (305 mm instead of 203 mm) - Mid span splices instead of splices at the post location - Transition piece from W-Beam to Thrie beam (gauge thickness, height and post spacing to match MGS based on FHWA Acceptance letters) - Cable anchor terminal uses C-Channel strut instead of Angle Strut

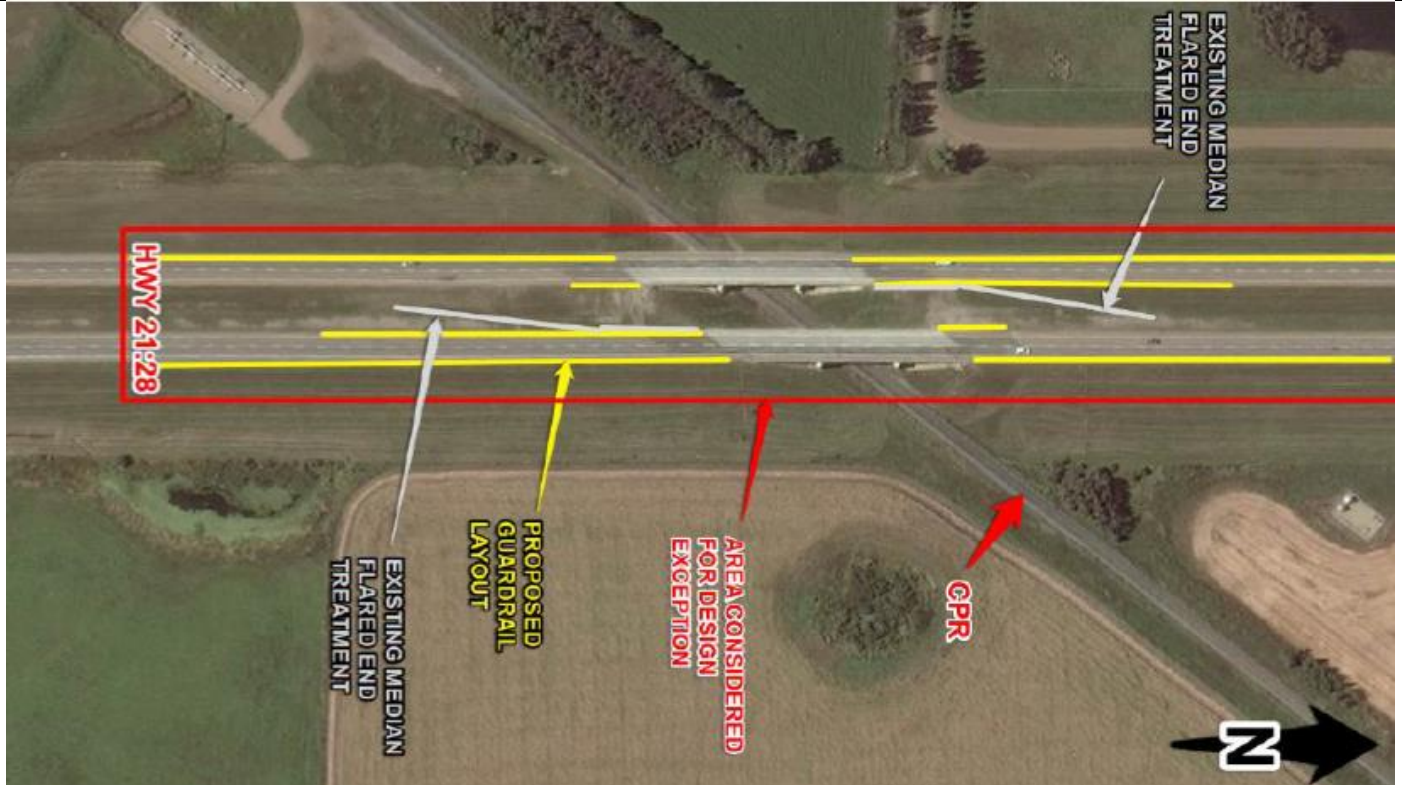
Rationale for Approval/Rejection
<p>This trial is proposed by Alberta Transportation in response to a memorandum issued by the Federal Highway Administration (FHWA) on May 17, 2010 regarding the use of a higher top rail height (787 mm) for Strong Post W-Beam systems instead of the traditional 705 mm due to modern day passenger vehicles having a larger centre of gravity. This adjustment is to minimize the potential for rollovers at the same time protecting the smaller passenger vehicles from going underneath the rail.</p> <p>This location will also allow the testing of the transition from MGS to the bridge rail via Thrie beam.</p> <p>At least a dozen States have already adopted the 787 mm top rail height as per the FHWA memorandum</p>

Additional Mitigation Required
None.

Key Words

Strong Post W-Beam, Guardrail, Midwest, MGS, Barrier.

Photograph/Diagram



Location of barrier installation